

We claim:

1. A solid preparation of at least two active compounds suitable for the food sector and animal feed sector or for pharmaceutical and cosmetic applications in the form of a multicore structure in which at least two cores of a multicore structure have a different chemical composition.
2. A solid preparation as claimed in claim 1, wherein the multicore structure is a particle species having a mean particle size of from 5 to 3000  $\mu\text{m}$  in which the cores are embedded in a matrix.
3. A solid preparation as claimed in one of claims 1 or 2 in which the cores have a mean particle size of from 0.01 to 1.0  $\mu\text{m}$ .
4. A solid preparation as claimed in one of claims 1 to 3, which is a carotenoid-containing dry powder of at least two carotenoids.
5. A carotenoid-containing dry powder as claimed in claim 4, wherein at least two cores comprise one or more different carotenoids.
6. A carotenoid-containing dry powder as claimed in one of claims 4 or 5, wherein at least two cores comprise only one representative of the carotenoid class of substances.
7. A carotenoid-containing dry powder as claimed in one of claims 4 to 6, wherein the carotenoids are a selection from the group of the carotenes and xanthophylls.
8. A carotenoid-containing dry powder as claimed in one of claims 4 to 7, comprising  $\beta$ -carotene, lycopene and lutein.
9. A carotenoid-containing dry powder as claimed in claim 8, comprising 1 part by weight of  $\beta$ -carotene, from 0.02 to 20 parts by weight of lycopene and from 0.02 to 20 parts by weight of lutein.

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- Sub a7*
10. A carotenoid-containing dry powder as claimed in one of claims 4 to 9, having a carotenoid content of from 0.1 to 50% by weight, based on the total amount of the dry powder.
- 5 11. A process for producing solid preparations defined according to claim 1 by drying an aqueous suspension comprising at least two active compounds which are suitable for the food sector and animal feed sector or for pharmaceutical and cosmetic applications in the form of nanoparticulate particles, which comprises at least two of the nanoparticulate particles having a different chemical composition.
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12. A process as claimed in claim 11, wherein the active compounds are at least two carotenoids.
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13. A process as claimed in one of claims 11 or 12, wherein at least two of the nanoparticulate particles comprise one or more different carotenoids.
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14. A process as claimed in one of claims 11 to 13, wherein at least two of the nanoparticulate particles comprise only one representative of the carotenoid class of substances.
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- 25 15. A process as claimed in one of claims 11 to 14, wherein the active compounds are present in the form of protective-colloid-stabilized nanoparticulate particles.
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16. A process as claimed in one of claims 11 to 15, wherein the nanoparticulate particles have a size of from 0.01 to 1.0  $\mu\text{m}$ .
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17. The use of the solid preparation defined according to one of claims 1 to 10 for producing food supplements and as additive to foods, animal feeds, pharmaceutical and cosmetic preparations.
18. The use as claimed in claim 17 for producing soft gelatin capsules.
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- 40 19. A food supplement, food, animal feed and pharmaceutical and cosmetic preparation comprising carotenoid-containing preparations defined according to one of claims 1 to 10.